

Keloid Treatments and Prevention

What are Keloids?

Keloids are raised, red scars caused by excessive healing of skin wounds, which can be itchy and painful. These can occur from burns, cuts, and acne, and can also occur after piercings, tattoos, or surgery. Keloids can grow for years and can show up three months or longer after an injury. In some people, the scar can keep forming long after the wound heals.

Keloids are more common in people with darker skin, such as black, Hispanic, and Asian people, though some people with lighter skin can get them as well. They are also more common in people younger than 30 years, pregnant women, and teenagers going through puberty. The most common areas on the body for keloid scarring are the chest, shoulders, earlobes, and cheeks.

Keloid Treatments

While there are many treatments for keloids, not every treatment works for everyone. Common treatment options include corticosteroid shots that can reduce or freeze the scar and silicone sheets worn over the scar. If these interventions are unsuccessful, surgical excision can be performed followed by any of the above to help prevent keloid recurrence.

For the best results to reduce chance of recurrence following surgical excision, keloids can be treated with radiation. Patients should begin radiation treatments immediately after keloid surgery or at the latest by the next day. Radiation can occasionally be used by itself to reduce the size of the keloid. However, getting surgery prior to radiation yields the best results. Radiation delivered immediately after surgical scar removal has been shown to successfully reduce keloid recurrence in up to 92% of cases. The actual radiation treatments are painless and similar to receiving an X-ray.

There are two ways of delivering radiation treatment for keloids – brachytherapy and external beam radiation. Both of these are believed to be equally effective and safe.

At UT Southwestern, we work closely with a multidisciplinary team of dermatologists and surgeons to achieve the best results.

Brachytherapy is a type of internal radiation therapy that allows a higher dose of radiation to be delivered directly to the scar, the area near it, or the site following scar removal. This approach helps protect surrounding healthy tissue. In this procedure, the surgeon will place a catheter during the keloid removal.

External beam radiation typically involves superficial X-rays or electrons, which are delivered externally without the need of catheter placement.

You will receive a total of three treatments following keloid excision. The first treatment will typically take place the same day as excision. Subsequent treatments will take place the following day, once in the morning and once at the end of the day.

Other treatment options for keloids include:

- Pressure earring, dressing, or garment
- Laser treatment
- Silicone gels
- Cryotherapy
- Ligature

Side Effects

Acute side effects from radiation may include, but are not limited to, skin irritation, hair loss in the treated area, darkening of skin in the treated area, and fatigue. Long-term side effects may include, but are not limited to, skin discoloration, soft tissue fibrosis, muscle wasting, and a small increased risk of secondary malignancy.

The following side effects can arise during radiation or seven to 10 days after treatment, and are related to total dose of radiation given:

- Reddening of the skin
- Edema
- Peeling of the skin
- Ulceration

Side effects that may occur weeks to months after treatment and are related to dose of radiation given per session include:

- Pigmentary changes (hypopigmentation or hyperpigmentation)
- Alopecia
- Atrophy
- Telangiectasis

Using an emollient and steroid treatments after radiation treatment can help reduce the risk of side effects.

Contact Us

Follow any skin care instructions provided by your surgeon. During office hours, call your radiation oncologist if you have any questions or concerns. After-hours, call 214-645-8525.